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Attorney Docket No. 01-4029
Application Serial No. 09/777,969

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier versions and listings.

1. (currently amended) A method for operating a user communication device, comprising the steps of:

providing a pre-configured and complete digital representation of an audible signal in each of a plurality of memory locations of a memory of the user communication device;

receiving a call signal at the user communication device, the audible signals being unique with respect to one another;

in response to receiving the call signal at the user communication device, selecting one of the plurality of memory locations; and

generating the audible signal represented by the pre-configured and complete digital representation provided in the memory location selected in the selecting step.

2. (original) A method as set forth in Claim 1, wherein the user communication device comprises at least one of a telephone and a radiotelephone.

3. (original) A method as set forth in Claim 1, wherein the user communication device is coupled to a network having a storage device, and the providing step comprises the steps of:

receiving, at the user communication device, each digital representation from the storage device; and

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storing each received digital representation in a respective one of the memory locations.

4. (original) A method as set forth in Claim 1, wherein the providing step comprises the steps of:

applying at least one audible signal to an input of a user input-interface of the user communication device, and outputting at least one corresponding analog signal within the device;

in response to the inputting step, converting the at least one analog signal to at least one corresponding digital representation of that at least one audible signal; and

storing the at least one digital representation in the memory of the user communication device.

5. (original) A method as set forth in Claim 1, further comprising a step of determining at least one of a date and a time at which the call signal is received in the user communication device, and wherein the step of selecting one of the plurality of memory locations is performed based on a result of the determining step.

6. (original) A method as set forth in Claim 1, wherein the selecting step is performed by randomly selecting one of the plurality of memory locations.

7. (original) A method as set forth in Claim 1, further comprising a step of operating an input-user interface of the user communication device to input information into

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the user communication device specifying that one of the plurality of memory locations be selected, and wherein the selecting step is performed by selecting the memory location specified by the inputted information.

8. (original) A method as set forth in Claim 1, wherein the selecting step is performed based on predetermined information included in the received call signal.

9. (original) A method as set forth in Claim 1, wherein the generating step is performed by generating the audible signal at predetermined time intervals.

10. (original) A method as set forth in Claim 1, further comprising the steps of:

determining at least one acoustic characteristic of at least one of the audible signals, based on at least one digital representation representing that at least one audible signal;

comparing the at least one acoustic characteristic determined in the determining step to at least one predetermined acoustic characteristic; and

scaling the at least one digital representation based on a result of the comparing step, to normalize the at least one acoustic characteristic of the at least one audible signal.

11. (cancelled)

12. (cancelled)

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13. (cancelled)

14. (currently amended) A user communication device, comprising:

a memory including a plurality of memory locations, each storing a pre-configured and complete digital representation of a corresponding audible signal, the audible signals being unique with respect to one another;

a communication interface, coupled to an external interface, for receiving a call signal forwarded from a source communication device through the external interface;

an output-user interface having an input, said output-user interface for outputting an audible signal in response to an analog signal being applied to that input;

a converter having an input and an output, the output being coupled to the input of said output-user interface, said converter for converting digital information applied to the input thereof to a corresponding analog signal; and

a controller coupled to said memory, said communication interface, and the input of said converter, said controller being responsive to receiving the call signal from the communication interface for selecting one of the plurality of memory locations, and for applying the pre-configured and complete digital representation stored in the selected memory location to the input of said converter, to cause said converter to output a corresponding analog signal to the input of said output-user interface, and thereby cause the output-user interface to output the corresponding audible signal.

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15. (original) A user communication device as set forth in Claim 14, wherein said user communication device comprises at least one of a telephone and a radiotelephone.

16. (original) A user communication device as set forth in Claim 14, wherein said controller is in communication with at least one communication network through the external interface and said communication interface, the at least one communication network has a storage device for storing each digital representation, and wherein said controller is responsive to receiving each individual digital representation from the storage device of the at least one network for storing that digital representation in said memory.

17. (original) A user communication device as set forth in Claim 14, further comprising:

an input interface having an input, and also having an output coupled to said controller, said input interface being responsive to each individual audible signal being applied to that input for outputting a corresponding analog signal in said user communication device; and

a further converter interposed between an output of said input interface and an input of said controller, said further converter being responsive to receiving each individual analog signal for producing the corresponding digital representation, and wherein said controller is responsive to each individual produced digital representation for storing the produced digital representation in said memory.

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18. (original) A user communication device as set forth in Claim 14, wherein said controller selects one of the plurality of memory locations based on predetermined information included in the call signal.
19. (original) A user communication device as set forth in Claim 14, wherein said controller is responsive to the call signal being received for determining at least one of a date and a time at which the call signal is received in the user communication device, and selects one of the plurality of memory locations based on the determined at least one of the date and time.
20. (original) A user communication device as set forth in Claim 14, wherein said controller selects one of the plurality of memory locations at random.
21. (original) A user communication device as set forth in Claim 14, wherein said user communication device further comprises an input user interface for inputting, into said controller, information specifying that one of the plurality of memory locations be selected, and said controller is responsive to the call signal being received for selecting the memory location specified by the information inputted through said input user interface.
22. (original) A user communication device as set forth in Claim 14, wherein said controller applies the retrieved digital representation to the input of said converter at

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predetermined time intervals, to cause the audible signal to be output at those predetermined time intervals.

23. (original) A user communication device as set forth in Claim 14, wherein said controller is operable for (a) determining at least one acoustic characteristic of at least one of the audible signals, based on the corresponding digital representation provided in said memory, (b) comparing the at least one acoustic characteristic to at least one predetermined acoustic characteristic, and (c) scaling the corresponding digital representation based on a result of the comparison, to normalize the at least one acoustic characteristic.

24. (cancelled)

25. (cancelled)

26. (cancelled)

27. (currently amended) A program product which comprises program code for executing a method for operating a user communication device, the method comprising the steps of:

providing a pre-configured and complete digital representation of an audible signal in each of a plurality of memory locations of a memory of the user communication device, the audible signals being unique with respect to one another;

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receiving a call signal at the user communication device;
in response to receiving the call signal at the user communication device, selecting one of the plurality of memory locations; and
generating the audible signal represented by the pre-configured and complete digital representation provided in the memory location selected in the selecting step.

28. (original) A program product as set forth in Claim 27, wherein the user communication device is in communication with a network having a storage device, and the providing step comprises the steps of:

receiving, at the user communication device, each digital representation from the storage device; and

storing each received digital representation in a respective one of the memory locations.

29. (original) A program product as set forth in Claim 27, wherein the providing step comprises the steps of:

producing analog signals within the user communication device in response to audible signals being applied to an input of a user input-interface of the device, the analog signals representing the audible signals;

in response to the analog signals being produced, converting the analog signals to corresponding digital representations; and

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storing the digital representations in respective ones of the memory locations of the memory.

30. (original) A program product as set forth in Claim 27, wherein the step of selecting one of the plurality of memory locations is performed based on predetermined information included in the received call signal.

31. (original) A program product as set forth in Claim 27, further comprising a step of determining at least one of a date and a time at which the call signal is received in the user communication device, and wherein the step of selecting one of the plurality of memory locations is performed based on a result of the determining step.

32. (original) A program product as set forth in Claim 27, wherein the selecting step is performed by randomly selecting one of the plurality of memory locations.

33. (original) A program product as set forth in Claim 27, further comprising a step of entering, through an input-user interface of the user communication device, information specifying that one of the plurality of memory locations be selected, and wherein the selecting step is performed by selecting the memory location specified by the inputted information.

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34. (original) A program product as set forth in Claim 27, wherein the generating step is performed by generating the audible signal at predetermined time intervals.

35. (original) A program product as set forth in Claim 27, wherein the method further comprises the steps of:

determining at least one acoustic characteristic of at least one of the audible signals, based on at least one of the provided digital representations;

comparing the at least one acoustic characteristic determined in the determining step to at least one predetermined acoustic characteristic; and

scaling the at least one digital representation based on a result of the comparing step, to normalize the at least one acoustic characteristic of the at least one audible signal.

36. (cancelled)

37. (cancelled)

38. (cancelled)

39. (cancelled)

40. (cancelled)

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41. (cancelled)

42. (cancelled)

43. (cancelled)

44. (cancelled)

45. (cancelled)

46. (cancelled)

47. (cancelled)

48. (cancelled)

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50. (cancelled)

51. (cancelled)

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52. (cancelled)

53. (cancelled)

54. (cancelled)

55. (cancelled)

56. (cancelled)

57. (cancelled)

58. (cancelled)

59. (cancelled)

60. (currently amended) A communication system, comprising:

a first user communication device comprising a first communication interface coupled to an external interface, and a controller coupled to the first communication interface, the controller being operable for forwarding a call signal through the first communication interface; and

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a second user communication device comprising a memory, a second communication interface coupled to the external interface, and an audible signal generator portion coupled to the memory and the second communication interface,

wherein the memory has a plurality of memory locations, each of which stores a pre-configured and complete digital representation of a corresponding audible signal, the audible signals being unique with respect to one another, and

wherein the audible signal generator portion is responsive to the call signal being received from the first user communication device through the second communication interface for selecting one of the memory locations and for generating the audible signal represented by the preconfigured and complete digital representation stored in the selected memory location.

61. (original) A communication system as set forth in Claim 60, wherein each of the first and second user communication devices comprises one of a telephone, a radiotelephone, and an information appliance.

62. (original) A communication system as set forth in Claim 60, wherein the audible signal generator portion selects one of the memory locations based on predetermined information included in the received call signal.

63. (original) A communication system as set forth in Claim 60, wherein the audible signal generator portion is responsive to the call signal being received for determining

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at least one of a date and a time at which the call signal is received, and selects one of the plurality of memory locations based on a result of that determination.

64. (original) A communication system as set forth in Claim 60, wherein the audible signal generator portion randomly selects one of the plurality of memory locations.

65. (original) A communication system as set forth in Claim 60, wherein said second user communication device further comprises an input-user interface coupled to the audible signal generator portion, for inputting information into that device specifying that one of the plurality of memory locations be selected, and wherein the audible signal generator portion is responsive to the call signal being received for selecting the memory location specified by that inputted information.

66. (original) A communication system as set forth in Claim 60, wherein the communication system also comprises at least one communication network coupled to the first and second user communication devices through the respective first and second communication interfaces, said at least one communication network comprises a message station and a storage device storing the digital representations of the audible signals, wherein at least one of the controller of said first user communication device and the audible signal generator portion of said second user communication device is operable for communicating a download request to the at least one network, and wherein the message station is responsive to receiving the download request for providing the digital representations from the storage device to the second

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communication interface of the second user communication device, and wherein the audible signal generator portion of said second user communication device is responsive to receiving the digital representations from the second communication interface for storing the digital representations in respective ones of the memory locations in the memory.

67. (original) A communication system as set forth in Claim 66, wherein the at least one of the controller and the audible signal generator portion communicates the download request a plurality of times at respective predetermined time intervals.

68. (cancelled)

69. (cancelled)

70. (cancelled)

71. (cancelled)

72. (cancelled)

73. (currently amended) A method for operating a user communication device, comprising the steps of:

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~~operating an interface of the communication device to enter into the device~~
receiving an incoming call signal transmitted by another device to make a call to the
communication device, the incoming call signal including at least one identifier identifying at
least one respective calling source from which a call signal may be received;
~~operating the interface to enter into the user communication device~~ the other
communication device and at least one signal representing at least one corresponding user-
perceptible alerting signal that is to be generated in response to a call being received from the at
~~least one respective calling source~~ other communication device; and
storing in a memory of the user communication device, the at least one identifier
in association with the at least one signal; and
generating the at least one corresponding user-perceptible alerting signal in
response to the call being received from the other communication device.

74. (original) A method as set forth in Claim 73, wherein the user-
perceptible alerting signal includes an audible signal.

75. (original) A method as set forth in Claim 73, further comprising a
step of normalizing the entered at least one signal in accordance with predetermined criteria.

76. (original) A method as set forth in Claim 73, wherein the at least one
identifier comprises at least one of a telephone number, a pager number, an IP address, a domain
name, and a public key certificate.

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77. (currently amended) A method for operating a user communication device, comprising the steps of:

at the user communication device, receiving an incoming call signal from a calling source, the incoming call signal having being transmitted by another device to make a call to the user communications device, the call signal including both an identifier which identifies the calling source[,] and information representing a user-perceptible alerting signal;

comparing the identifier included in the call signal with a plurality of identifiers stored in a memory of the user communication device to determine whether any of the compared identifiers correspond with one another; and

if it is determined that the identifier included in the call signal corresponds to any of the identifiers stored in the memory, generating the user-perceptible alerting signal represented by the information included in the call signal in response to the incoming call signal being received from the calling source.

78. (original) A method as set forth in Claim 77, wherein if it is determined that the identifier included in the received call signal does not correspond to any of the identifiers stored in the memory, a step is performed of generating a different user-perceptible alerting signal.

79. (original) A method as set forth in Claim 77, wherein user-perceptible alerting signal includes an audible signal.

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80. (currently amended) A user communication device, comprising:

a memory;

an interface; and

a controller coupled to said memory and said interface, said controller being responsive to receiving from said interface adapted to (a) store in the memory at least one identifier identifying at least one respective calling source from which a call signal may be received; and (b) at least one signal representing at least one respective user-perceptible alerting signal that is to be generated in response to a call signal being received from the at least one respective calling source, for storing the entered at least one signal in association with the at least one identifier in said memory the at least one identifier and at least one signal having been received with a call from the at least one respective calling source; and (b) cause the at least one respective user-perceptible alerting signal to be generated in response to the call being received from the at least one respective calling source.

81. (currently amended) A user communication device, comprising:

a communication interface for receiving an incoming call signal from a calling source, the call signal including both an identifier which identifies the calling source and information representing a user-perceptible alerting signal;

an output user-interface;

a memory storing a plurality of identifiers identifying calling sources from which call signals may be received; and

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a controller coupled to said communication interface, said output user-interface, and said memory, said controller being responsive to receiving the call signal from said communication interface for comparing the identifier included in the call signal with the plurality of identifiers stored in said memory to determine whether any of the compared identifiers correspond to one another, and, if it is determined that the identifier included in the call signal corresponds to any of the identifiers stored in the memory for controlling said output user-interface for causing that output user-interface to generate the user-perceptible alerting signal represented by the information included in the call signal in response to the call signal being received from the calling source.

82. (original) A user communication device as set forth in Claim 81, wherein said controller is responsive to determining that the identifier included in the received call signal does not correspond to any of the identifiers stored in the memory, for controlling said output user-interface to cause that output interface to generate a different user-perceptible alerting signal.

83. (original) A user communication device as set forth in Claim 81, wherein the output user-interface includes a speaker, and the user-perceptible alerting signal includes an audible signal.

84. (cancelled)

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85. (cancelled)

86. (currently amended) A user communication device, comprising:
communication interface means for receiving an incoming call signal from a
calling source, the call signal including both an identifier which identifies the calling source and
information representing a user-perceptible alerting signal
output user-interface means;
a storage means storing a plurality of identifiers identifying calling sources from
which call signals may be received; and
control means coupled to said communication interface means, said output user-
interface means, and said storage means, said control means being responsive to receiving the
call signal from said communication interface means for comparing the identifier included in the
call signal with the plurality of identifiers stored in said storage means to determine whether any
of the compared identifiers correspond to one another, and, if it is determined that the identifier
included in the call signal corresponds to any of the identifiers stored in the storage means, for
controlling said output user-interface means to cause that output user-interface means to generate
the user-perceptible alerting signal represented by the information included in the call signal in
response to the call signal being received from the calling source.

87. (original) A user communication device as set forth in Claim 86,
wherein the output user-interface means includes a speaker, and the user-perceptible alerting
signal includes an audible signal.

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88. (cancelled)